

Gen V eWG50 ProGate50

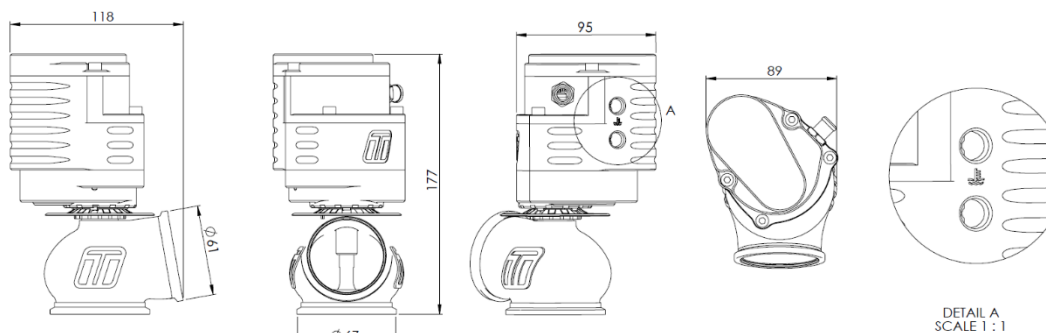


The Gen-V WG50 ProGate50 external electronic wastegate is a cost effective, high performing 50mm external wastegate. The Gen-V provides extensive user configurability, world leading extended thermal performance, fatigue resistance and best in class flow performance for optimum control and longevity.

- Liquid cooling provision
- Strap type V-band clamps
- User adjustable actuator position
- Modular actuator design
- Full Electronic control

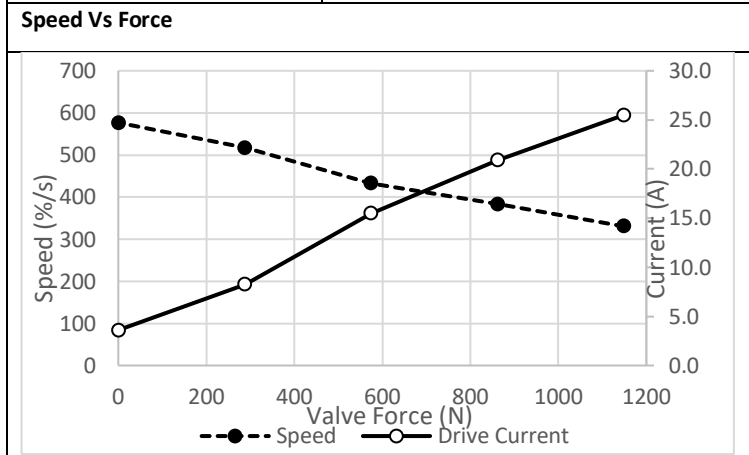
| Mechanical Data | |
|-----------------------------------|--|
| Valve diameter | 50mm (1.969in) |
| Mass | WG50 1680kg (3.703lbs) |
| Actuator linearity | 1.02% of full lift (BFSL) |
| Set pressure accuracy | +/- 0.5 psi of base pressure |
| Safe working pressure max. | 220 psi / 1520 kPa / 15 bar |
| Safe inverted pressure max. | 180 psi / 1250 kPa / 12.5 bar |
| Actuator life | 550k cycles @ 150°C (302 °F) ambient 800k cycles @ 80°C (176 °F) ambient |
| Port fittings type | Liquid Cooling: 2x 1/8" NPT |
| Thermal Data | |
| Max. thermal stress (non-cooled)* | >45min @ 1250°C EGT continuous |
| Max. thermal stress (h2O cooled)* | >24hr @ 1250°C EGT continuous |
| Max. ambient/compartament temp. | 260°C / 500°F |
| Max. actuator temp. | 150°C / 257°F |
| Electrical Data | |
| Sensor Operating voltage | 5V +/-0.5V |
| Output | Analog 0-5V |
| Operating Temperature | -40 °C to 150 °C |
| Sensor Supply Current | 21mA |

| Temp Sensor Data | | |
|-------------------------|---------------------------|-------|
| Accuracy | +/- 2.5°C | |
| Voltage offset at 0°C | 500mV | |
| Gain | 10mV/ °C | |
| Response @63% | 1.3s | |
| Sensor Output (mV) | Deg C | Deg F |
| 500 | 0 | 32 |
| 2000 | 150 | 302 |
| Connection Data | | |
| Red 22AWG | 5V | |
| Black 22AWG | 0V | |
| White 22AWG | Valve position | |
| Yellow 22AWG | Sensor Temperature | |
| Red 14WG | Motor A (positive closed) | |
| Black 14AWG | Motor B (positive open) | |

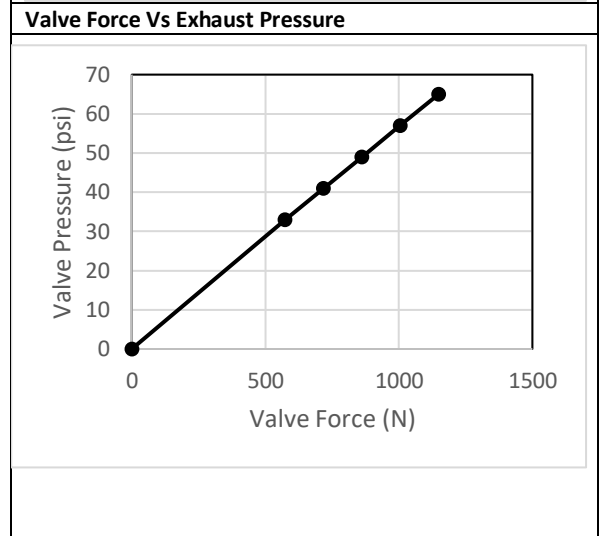
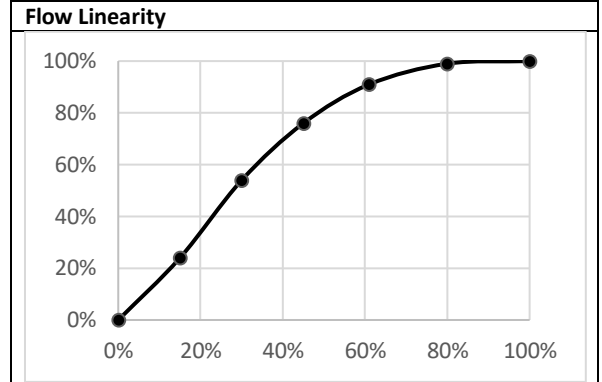


*Continual source of minimum 1250°C exhaust gas, with no cool down periods for at least 30minutes and no external air cooling on actuator, this is a destructive test that an ICE engine cannot support. Contact tech support for further information.

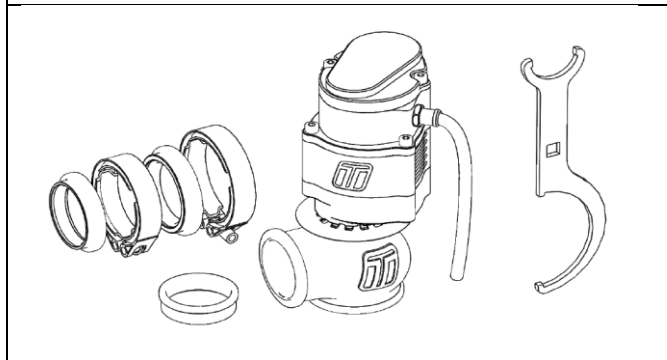
| Material Data | |
|----------------------|-----------------------------------|
| Beryllium (Be) | 0% |
| Main Body | High temp 347 SS |
| Actuator housing | 6061 T6 anodised Al. |
| Valve Guide | Nitronic 60 |
| Valve | EV8 w/ proprietary plating |
| V-Band | Heat treated 431 SS w/ 18-8 nut |
| Weld Flanges | 304 Stainless Steel |
| Motor Data | |
| Wire Size | 16AWG |
| Direction | Red wire positive closed |
| Stall Current** | 60A |
| Hold Current | 0A (Short motor wire for braking) |
| Max Force @stall | 4085N |
| Max Force @power | 2042N |
| Speed (Opening) | 598%/s |



| Flow Characteristics | |
|-----------------------------|---|
| Max. Flow | 193.6 CFM/5.48m ³ /min @1psidP |
| Flow Linearity | -18% of full lift (BFSL) |



| Included in the Box |
|----------------------------|
| Wastegate unit |
| SS316 Valve seat |
| Inlet V-Band |
| Inlet SS304 weld flange |
| Outlet V-Band |
| Outlet SS304 weld flange |
| Collar tool (master/slave) |
| Sticker |
| Instruction card |



| Order Data | |
|---|---|
| TS-0554-1502 | Gen-V eWG50 ProGate 50 Electronic Black |
| Accessories | |
| TS-0554-3002 | WG50 Valve and Guide set |
| TS-0554-3003 | WG50 Inlet V-Band |
| TS-0554-3004 | WG50 Outlet V-Band |
| TS-0502-3001 | WG50 Stainless Inlet Weld Flange |
| TS-0502-3002 | WG50 Stainless Outlet Weld Flange |
| TS-0502-3007 | W50 Alloy Inlet Weld Flange |
| TS-0502-3008 | W50 Alloy Outlet Weld Flange |
| TS-0550-3013 | 54mm Actuator Collar Tool |
| <i>Refer to catalogue for further accessories</i> | |
| Install Req. | |
| Inlet Pipe | Suits 50.8mm/2.00" OD |
| Outlet Pipe | Suits 50.8mm/2.00" OD |
| Port Tube Min. ID | 6mm / 0.236" |

** High amperage for prolonged periods will damage the motor, keep high Amperage operation to short bursts.